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# The 33 carboxyl-terminal residues of Spa40 orchestrate the multi-step assembly process of the type III secretion needle complex in *Shigella flexneri*

**By:** Anne Botteaux, Christian A. Kayath, Anne-Laure Page, Nouredine Jouihri, Musa Sani, Egbert Boekema, Latéfa Biskri, Claude Parsot and Abdelmounaïm Allaoui

## Supplementary Table S1. List of primers used in this study

Nucleotides shown in bold type indicate added restriction sites used either for cloning or for monitoring directed mutagenesis.

Primer	Sequence (5'–3')	Restriction site
Spa40-1	CG <b>GAATTC</b> GATCCTGCCAATGGTGTT	<i>EcoRI</i>
Spa40-2	TGAG <b>TCGACA</b> ATTGTCGGTTACGCCATG	<i>HincII</i>
Spa40-3	G <b>CGAATTC</b> AGATTTGCTCCGCAGATGAA	<i>EcoRI</i>
Spa40-4	GGG <b>AAGCTT</b> TACTTATTAATGAGTGTTTTCAACC	<i>HindIII</i>
Spa40-5	TATATAGAGCAAG <b>AATTC</b> CACTTTGAGACAAAG	<i>EcoRI</i>
Spa40-6	CTTTGTCTCAAAGTG <b>GAATTC</b> TGCTCTATATA	<i>EcoRI</i>
Spa40-7	GAAACTAACCAGTGTGT <b>GCTAGCT</b> GTGAGAAAATATGC	<i>NheI</i>
Spa40-8	GCATATTTTCTGACAG <b>CTAGC</b> ACACACTGGTTAGTTTC	<i>NheI</i>
Spa40-9	TTAGCTAGAAA <b>AGCTT</b> ATAAAACACAT	<i>HindIII</i>
Spa40-10	ATGTGTTTTATA <b>AGCTT</b> TTCTAGCTAA	<i>HindIII</i>
Spa40-11	TACAAAATATAGT <b>TTTAAAG</b> AGATTTTGAACACTTGG	<i>DraI</i>
Spa40-12	CCAAGTGTTCAAAATC <b>TTTAA</b> AACTATATTTTATA	<i>DraI</i>
Spa40-13	AAATTAGTGGTAATGATTGCAATTGGTATTTATTTTAATC	
Spa40-14	TAACCAATTGCAATCATTACCACTAATTTTGAATTACG	
Spa40-15	<b>GGATCC</b> GATAAACAGGAGATAAAAAGAGA	<i>BamHI</i>
Spa40-16	<b>GTCGAC</b> CATCTCCTTTACTTATTAATGAGTGTT	<i>SalI</i>
Spa40-17	GCAATATGAGTC <b>GAATTC</b> ATTATCACTA	<i>EcoRI</i>
Spa40-18	ATGGG <b>ATCC</b> ACTCATATTGCAATTGGT	<i>BamHI</i>
Spa40-19	TGACCC <b>GGG</b> TTATATCCTTATTGCTAAAGAAA	<i>SmaI</i>

Primer	Sequence (5'–3')	Restriction site
Spa40-20	TTAGGATCCAAACTATATAAAACACAT	<i>Bam</i> HI
Spa33.1	CGCGGATCCCTAAGAATTAAACATTTTGACGC	<i>Bam</i> HI
Spa33As	GGCCTCGAGGAGATTACTCCTTTACCATCC	<i>Xho</i> I
MxiA6	AACTGCAGGGCGCTTTGGGCTCCCAGA	<i>Pst</i> I
MxiA2	CGGGGTACCATGGAGGACAACCAATCGTGA	<i>Kpn</i> I